THEREFORE WHAT IS CLAIMED IS:

1. A light-emitting device having an embedded charge injection electrode, comprising:

a) a light-transmissive substrate;

b) a light-transmissive first electrode layer on the substrate;

c) a first charge transport layer on the first electrode layer for transporting charges injected from the first electrode layer into the first charge transport layer;

d) a light-emissive layer on the first charge transport layer;

e) a first charge injection electrode layer on the light-emissive layer with the charge injection electrode layer being electrically floating;

f) a second charge transport layer on the first charge injection electrode layer; and

g) a second electrode layer on the second charge transport layer wherein the second charge transport layer is for transporting charges injected from the second electrode layer.

2. The light-emitting device of claim 1 wherein the first electrode layer is an anode electrode layer, wherein the second electrode layer is a cathode electrode layer, wherein the first charge transport layer is a hole transport layer, wherein the second charge transport layer is an organic-based electron transport layer, and wherein the first embedded charge injection electrode layer is formed of a low work function metal or metal alloy.

3. The light-emitting device of claim 2 wherein the first embedded charge injection electrode layer is formed of a material selected from the group consisting of Ag, Al, Ca, Mg and alloys of Mg:Ag.

4. The light-emitting device of claim 2 wherein the first embedded charge injection electrode layer is formed of one of a bi-layer of alkali fluoride/metal and a bi-layer of metal/metal.

5. The light-emitting device of claim 4 wherein the bi-layer of alkali fluoride/metal is LiF/Al.

6. The light-emitting device of claim 2 wherein the first embedded charge injection electrode is formed of tri-layer of one of an alkali fluoride/metal/alkaline fluoride or alkaline fluoride/metal/metal.

7. The light-emitting device of claim 6 wherein the tri-layer of an alkali fluoride/metal/alkali fluoride is LiF/Al/LiF and the tri-layer of a fluoride/metal/metal is LiF/Al/Mg.

8. The light-emitting device of claim 4 wherein the metal layers in the bilayers and trilayers have a thickness in a range from 2 nm to 30 nm.

9. The light-emitting devices of claim 4 wherein the alkali fluoride layer

thickness is in a range from about 0.2 to 1.0 nm.

10. The light-emitting device of claim 2 wherein the organic electron-transport layer is formed of electron-conductive organic molecules.

11. The light-emitting device of claim 10 wherein the organic electron-transport layer has a thickness in a range from about 30 to about 300 nm.

12. The light-emitting device of claim 2 wherein the cathode electrode layer is made of a material selected from the group consisting of ITO, Al, Cr, Cu, Ag, Au, Ni, Fe, Ni, W, Mo and Co.

13. The light-emitting device of claim 2 wherein the anode electrode layer is made of a material selected from the group consisting of ITO, SnO_2, Ni, Pt, Au, p++ semiconductors (c-Si, a-Si, a-Si:H, poly silicon).

14. The light-emitting device of claim 2 including a cathode capping layer made of dielectrics on the cathode comprised of one of a Si oxide and a nitride.

15. The light-emitting device of claim 2 including a second charge injection electrode layer between the light-emissive layer and the hole transport layer with the second charge injection electrode being electrically floating.

16. The light-emitting device of claim 15 wherein the second embedded charge injection electrode layer is formed of a material selected from the group consisting of high work function metals and metal oxides.

17. The light-emitting device of claim 16 wherein the second embedded charge injection electrode layer is formed of a material selected from the group consisting of high work indium tin oxide (ITO), gold, nickel, platinum and silver.

18. The light-emitting device of claim 2 wherein the organic electron-transport layer is formed of electron-conductive organic molecules selected from the group consisting of Alq, fullerenes C60 and C70, CuPc and conducting aromatic compounds.

19. The light-emitting device of claim 1 wherein a thickness of the first embedded charge injection electrode and a thickness of the electron-transport layer are selected to give destructive interference of pre-selected wavelengths of light.

20. A light-emitting device having an embedded charge injection electrode, comprising:

a) a substrate;

b) an optically reflective anode electrode layer on the substrate;

c) a hole-transport layer on the optically reflective anode electrode layer;

d) a light-emissive layer on the hole-transport layer;

e) a first charge injection electrode layer on the light-emissive layer with the charge injection electrode layer being electrically floating;

f) an organic electron-transport layer on the charge injection electrode layer; and

e) a light-transmissive cathode electrode layer on the organic electron-transport layer.

21. The light-emitting device of claim 22 wherein the organic electron-transport layer is formed of electron-conductive molecules.

22. The light-emitting device of claim 21 wherein the organic electron-transport layer is selected from the group consisting of Alq, CuPc, fullerenes C60 and C70, and conducting aromatic compounds.

23. The light-emitting device of claim 22 wherein the organic electron-transport layer has a thickness in a range from about 30 to about 300 nm.

24. The light-emitting device of claim 20 wherein the first embedded charge injection electrode layer is made of a low work function metal or metal alloy.

25. The light-emitting device of claim 24 wherein the first embedded charge injection electrode layer is formed of a material selected from the group

consisting of Ag, Al, Ca, Mg and alloys of Mg:Ag.

26. The light-emitting device of claim 20 wherein the first embedded charge injection electrode layer is formed of one of a bi-layer of alkali fluoride/metal and a bi-layer of metal/metal.

27. The light-emitting device of claim 26 wherein the bi-layer of alkali fluoride/metal is LiF/Al.

28. The light-emitting device of claim 20 wherein the first embedded charge injection electrode layer is formed of tri-layer of one of an alkali fluoride/metal/alkaline fluoride and an alkaline fluoride/metal/metal.

29. The light-emitting device of claim 28 wherein the tri-layer of an alkali fluoride/metal/alkali fluoride is LiF/Al/LiF and the tri-layer of a fluoride/metal/metal is LiF/Al/Mg.

30. The light-emitting device of claim 26 wherein the metal layers in the bilayers and trilayers have a thickness in a range from about 2 nm to about 30 nm.

31. The light-emitting device of claim 26 wherein the alkali fluoride layer thickness is in a range from about 0.2 to about 1.0 nm.

32. The light-emitting device of claim 20 wherein the cathode electrode layer is a metal, metal oxide or metal layer selected from the group consisting of Al, Cu, Ag, Mg:Ag, Au and ITO.

33. The light-emitting device of claim 32 wherein the alloy or metal layer has a thickness in a range from 15 nm to 300 nm.

34. The light-emitting device of claim 20 including a cathode capping layer made of dielectrics deposited on the cathode by sputtering comprised of one of a Si oxide and a nitride.

35. The light-emitting device of claim 20 wherein a thickness of the first embedded charge injection electrode and a thickness of the hole-transport layer and a thickness of the light-emissive layer are selected to give destructive interference of pre-selected wavelengths of light.

36. A light-emitting device having an embedded charge injection electrode, comprising:

a) a light-transmissive substrate;

b) a light-transmissive anode electrode layer on the substrate;

c) a hole-transporting layer on the anode;

d) a first charge injection electrode layer on the hole-transporting layer with the charge injection electrode being electrically floating;

e) a light-emissive layer on the charge injection electrode layer;

f) an organic electron-transport layer on the light-emissive layer; and

g) a cathode electrode layer on the organic electron-transport layer.

37. The light-emitting device of claim 36 including a second charge injection electrode layer between the light-emissive layer and the electron transport layer with the second charge injection electrode being electrically floating.

38. The light-emitting device of claim 36 wherein the first embedded charge injection electrode layer is formed of a material selected from the group consisting of high work function metals and metal oxides.

39. The light-emitting device of claim 36 wherein the first embedded charge injection electrode layer is formed of a material selected from the group consisting of high work indium tin oxide (ITO), gold, nickel, platinum and silver.

40. The light-emitting device of claim 39 wherein the first embedded charge injection electrode layer is formed of a material selected from the group consisting of graphitic carbon and nanostructured carbon fullerenes, C60 and C70.

41. The light-emitting device of claim 37 wherein the second embedded charge injection electrode layer is formed of low work function metals or metal

alloys.

42. The light-emitting device of claim 41 wherein the second embedded charge injection electrode is formed of a material selected from the group consisting of Ag, Al, Ca, Mg and alloys of Mg:Ag.

43. The light-emitting device of claim 36 wherein the first embedded charge injection electrode is formed of one of a bi-layer of alkali fluoride/metal and bi-layer of metal/metal.

44. The light-emitting device of claim 43 wherein the bi-layer of alkali fluoride/metal is LiF/Al.

45. The light-emitting device of claim 36 wherein a thickness of the first embedded charge injection electrode and a thickness of the light emissive layer and the electron transport layer are selected to give destructive interference of pre-selected wavelengths of light.

46. A light-emitting device having an embedded charge injection electrode, comprising:

a) a substrate;

b) an anode electrode layer on the substrate;

c) a hole-transporting layer on the anode;

d) a first charge injection electrode layer on the hole-transporting layer with the charge injection electrode being electrically floating;

e) a light-emissive layer on the charge injection electrode layer;

f) an organic electron-transport layer on the light-emissive layer; and

g) a transmissive cathode electrode layer on the organic electron-transport layer.

47. The light-emitting device of claim 46 including a second charge injection electrode layer between the light-emissive layer and the electron transport layer with the second charge injection electrode being electrically floating.

48. The light-emitting device of claim 46 wherein the first embedded charge injection electrode is formed of a material selected from the group consisting of highly reflective metals.

49. The light-emitting device of claim 48 wherein the highly reflective metals are selected from the group consisting of Al and Cr.

50. The light-emitting device of claim 48 wherein the first embedded charge injection electrode layer is formed of a material selected from the group consisting of high work function metals and metal oxides.

51. The light-emitting device of claim 50 wherein the first embedded charge

injection electrode is formed of a material selected from the group consisting of high work indium tin oxide (ITO), gold, nickel, platinum and silver.

52. The light-emitting device of claim 50 wherein the first embedded charge injection electrode is formed of a material selected from the group consisting of graphitic carbon and nanostructured carbon fullerenes, C60 and C70.

53. The light-emitting device of claim 47 wherein the second embedded charge injection electrode layer is formed of a low work function metal or metal alloy.

54. The light-emitting device of claim 53 wherein the second embedded charge injection electrode layer is formed of a material selected from the group consisting of Ag, Al, Ca, Mg and alloys of Mg:Ag.

55. The light-emitting device of claim 46 wherein the second embedded charge injection electrode is formed of one of a bi-layer of alkali fluoride/metal, and a bi-layer of metal/metal.

56. The light-emitting device of claim 55 wherein the bi-layer of alkali fluoride/metal is LiF/Al.

57. The light-emitting device of claim 46 wherein the first embedded charge injection electrode is formed of one of a tri-layer of an alkali fluoride/metal/alkali fluoride and a fluoride/metal/metal.

58. The light-emitting device of claim 57 wherein the tri-layer of an alkali fluoride/metal/alkali fluoride is LiF/Al/LiF and the tri-layer of a fluoride/metal/metal is LiF/Al/Mg.

59. The light-emitting device of claim 46 wherein a thickness of the first embedded charge injection electrode and a thickness of the hole-transport layer are selected to give destructive interference of pre-selected wavelengths of light.

60. The light-emitting device of claim 1 including a power supply means connected between the anode electrode layer and the cathode electrode layer for applying a pre-selected voltage across the anode electrode layer and the cathode electrode layer and all layers therebetween.

61. The light-emitting device of claim 1 wherein the light emissive layer is produced using any one of organic based fluorescent and phosphorescent molecules or polymers, and combinations thereof.